

In the Specification

1. Please replace paragraph [0044] with the following amended paragraph [0044]:

The stabilization of QKD system 10 is achieved by using feedback from control channel detection in the detection stage(s). Here, the control channel signal CS is a “classical” (i.e., a relatively strong or bright) signal having the same or different wavelength as the quantum signal QS, and follows the same path (the “interferometric path”) through the interferometric part of the system. This means that the control and quantum signals CS and QS both travel at least through the interferometer loops in the first and second QKD stations Alice and Bob as well as through the fiber link FL that optically connects Alice and Bob. Note, however, that the control and quantum signals CS and QS need not travel the same optical path over the entire QKD system 10. For example, there are relatively small non-interferometric optical paths in the QKD systems where the control and quantum signals CS and QS travel different paths. With reference to FIG. 2 for example, the control and quantum signals CS and QS signals are independently generated and then combined from two different fibers onto a common optical fiber F1 using signal multiplexer 32. FIG. 10 also shows a non-interferometric path portion where the control and quantum signals CS and QS are directed to different optical fiber sections 302 and 304 and then are detected at different detectors 310 and 312. For the sake of illustration, the single-loop embodiment of QKD system 10 of FIG. 5 is referred to in the discussion below.